REPORT

BY THE

MEDICAL OFFICER OF HEALTH

OF THE

BOROUGH OF LOWESTOFT,

FOR THE YEAR

1893.

CONTAINING ALSO THE

ANNUAL REPORT

FOR THE

LOWESTOFT

PORT SANITARY DISTRICT.

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To the Chairman and Members of the Sanitary Committee of the Corporation of Lowestoft.

Gentlemen,

Herewith I beg to submit to you the Annual Report upon the health of the Borough and Port of Lowestoft for the year 1893, *and in so doing I must acknowledge my great indebtedness to your late Medical Officer, Dr. W. A. S. Wynne, for much kind and valuable assistance in its preparation.*

The statistics for the earlier portion of the year were naturally compiled by him, and have been incorporated with my own in order to preserve the continuity of these Reports, while the comments upon the various subjects dealt with, may be taken as our united opinion, arrived at after frequent consultations and careful deliberation.

I would wish more especially to call your attention to the remarks incorporated under the headings of Diphtheria, Diarrhœa, Enteric Fever, Measles and Whooping Cough respectively,

And have the honour to be, Gentlemen,

Your most obedient Servant,

FRANCIS W. CLARK,

Medical Officer of Health.

Health Department,
Town Hall,
Lowestoft.
February, 1894.

BOROUGH OF LOWESTOFT.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

For the Year ending December 31st,

1893.

The area of the Borough of Lowestoft is 2,306 acres, comprising Lowestoft, Kirkley and Gunton, and its rateable value is £90,362.

Population.

At the census of 1881 the population of the Borough was 19,696 while in April 1891 it was 23,151.

It is estimated to the middle of 1893 for the purpose of this Report to be 24,196.

Marriages.

The marriages of 400 persons were solemnized within the Borough during the year 1893. The average for the past ten years has been 183 marriages, so that the past year shows an increase of 17. It must be remembered however that the residences of those contracting parties whose marriages take place in Chapels and at the Registry office is not necessarily within the Borough.

Births.

During the year 1893 there have been registered 798 births giving an annual rate of 32.98 per thousand. Their quarterly distribution as to rate, sex and legitimacy is shown in the following table.

TABLE I.

Period,	Legitimate.		Illegitimate.		Total Births.	Rate per 1000.
	Male.	Female.	Male.	Female.		
1st Quarter	103	96	2	3	204	33.88
2nd ,,	101	91	1	2	195	32.23
3rd ,,	103	102	1	2	208	34.38
4th ,,	92	92	2	5	191	31.57
TOTAL	399	381	6	12	798	33.01

In addition to the above 2 illegitimate male children belonging to the Borough were born at Oulton Workhouse during the year.

The total number of births registered is 45 in excess of last year while the rate per 1000 is 1.29 greater. The average number of births registered during the previous ten years is 792 and the average rate per thousand has been 37.15 so that the birth rate is still low, though showing a slight increase over last year.

There is a marked decrease in the illegitimate births which number 20 including those at the Workhouse, as contrasted with 27 reported last year. Their rate per 1000 of the total births is 25.06 as compared with 35.8 last year. The rate for all England is about 50 per 1000.

The largest number of births occured during the third quarter, as last year. The female births are in excess of the male births in the proportion of 108 to 100. This is contrary to the experience of the country generally for the male births exceed the female births in the proportion of 104 to 100, and the excess of adult females over males is entirely dependent on the greater mortality amongst males at all ages except between 10 and 20.

The excess of births over deaths during the past year amounts to 343 as contrasted with 352 during 1892.

The birth rate for England and Wales during 1893 has been 29.9 per thousand.

Deaths.

TABLE II.

1893.	Male.	Female.	Total.	Rate per 1000.	Rate for 10 years 1879-84, 1889-92.
1st Quarter	47	57	104	17.19	16.57
2nd ,,	40	59	99	16.36	13.51
3rd ,,	78	71	149	24.63	14.90
4th ,,	53	49	102	16.86	16.56
TOTAL	218	237	454	18.76	

The average death-rate for the past ten years (1883-1892) has been 16.7, so that the rate for the year 1893 shows an increase of 2.06 per 1000 per annum on the previous average. It is also 1.87 per thousand higher than last year and 0.28 per 1000 higher than any of the ten preceding years, the highest previous rate having been 18.48 in the year 1886.

This high rate is entirely accounted for by the unusually large number of deaths from infantile diarrhœa which occurred during the third quarter, when the mortality rate rose from 16.36 to 24.63 per thousand. During this quarter nearly seventy per cent (i. e. 68.4 %) of deaths were in children under 5 years of age, as compared with 48.2 per cent during the previous half-year.

The above registered deaths include those of 9 persons who do not belong to the Borough; on the other hand 13 deaths occurred at Oulton Workhouse during the year, which must be included among our deaths, thus making a total of 458 and the corrected death-rate is therefore 18.92 per thousand. The deaths not belonging to the Borough are referred to again under the heading of "deaths as to locality.'

Of the total deaths 28 were certified by Inquest, 422 by qualified medical men and 4 were uncertified.

The death rate of England and Wales for the year 1893 has been 19.1 per thousand.

Deaths as to locality.

The distribution of registered deaths as to locality is as follows: North Ward 136; East 77; West 139; South 81; Hospital 15; Port 2; Sanatorium 3; Convalescent Home 1.

In the following table, however the deaths occurring in the above named Institutions have been allocated to those Wards to which the said persons belonged, and not necessarily to the Wards in which the Institutions are situated. The 13 deaths which occurred at the Workhouse are also accounted for in the following table, under their respective Wards. On the other hand the deaths of three visitors have been deducted, with also 4 deaths at the hospital which belong to the Rural District and the 2 deaths which occurred in the Port. The table may therefore be relied on to give the actual rates of mortality among residents in the several Wards, while the addition of the density of population of each Ward, as shown by the number of persons per acre, will I think help to explain the marked difference in the rates of mortality of the several Wards.

TABLE III.

	Population.	Corrected Deaths.	Rate per 1000 per annum.	No. of persons per acre.
North Ward	6795	147	21.63	35.6
East ,,	4979	80	16.67	30.4
West ,,	6945	143	20.59	54.5
South ,,	5477	88	16.06	26.1

From this table it will be seen that although the West Ward is the most densely populated, the North Ward has been the least healthy during the past year.

Deaths at Different Ages.

The deaths grouped according to age are as follows:—

TABLE IV.

	1st quarter.	2nd quarter.	3rd quarter.	4th quarter.	Total.
Under 1 year	33	34	80	29	176
1 and under 5	14	17	22	10	63
5 ,, ,, 15	4	10	2	8	24
15 ,, ,, 25	2	1	7	4	14
25 ,, ,, 65	15	17	14	27	73
65 & upwards.	36	20	24	24	104
At all ages	104	99	149	102	454

Infant Mortality.

The infant mortality during the year 1893 was unusually heavy, owing to the long continuance of the hot weather during the third quarter of the year. The rate of infant deaths per thousand births was 220, while for 1892 it was 132 and the same for the previous ten years. The two diseases which have been most fatal to infant life during the past year were Whooping Cough and Zymotic Diarrhœa, further mention of which will be found under the heading of deaths from Zymotic Diseases.

Adult Mortality.

The adult mortality compares most favourably with that of the preceding year. There have been but 14 deaths of young adults (*i.e.* 15-25) as compared with 19 during 1892, while during what may be termed the wage-earning period, that is between the ages of 25 and 65, when as a rule the cares and responsibilities of bringing up a family are most pressing, and the life is proportionately of greatest value to the community, the deaths number only 73 as contrasted with 120 during the previous year.

The deaths of those above 65 years of age remain much the same as last year namely 104, while last year they numbered 108. The mortality rate at this age is therefore 4.3 per thousand. The average rate for the past ten years has been 4.6 per thousand.

Deaths from Zymotic Diseases.

The deaths during the year from the seven principal zymotic diseases number 107 giving a rate of 4.4 per thousand.

The rate for England and Wales for the same period has been 2.47 per thousand, so that it will be seen at once that Lowestoft has suffered most severely from this cause of death during 1893.

The following table shows the diseases which comprise the above rate:—

TABLE V.

Disease.	1st quarter.	2nd quarter.	3rd quarter.	4th quarter.	Total.	Rate per 1000.	Mean rate of previous 10 years.
Small Pox ...	—	—	—	—	—	—	—
Measles ...	—	—	—	—	—	—	0.350
Scarlet Fever ...	—	—	—	1	1	0.082	0.041
Diphtheria ...	6	2	1	9	18	0.744	0.182
Whooping Cough	3	24	17	—	44	1.818	0.283
Enteric Fever ...	1	2	2	1	6	0.247	0.156
Diarrhœa ...	—	—	36	2	38	1.570	0.562
Totals ...	10	28	56	13	107	4.461	1.574

Further reference to these deaths will be found in Part II of this report, where a detailed account is given of the origin, locality and distribution of all cases of infectious disease which have come to our knowledge during the past year.

Three other deaths from a zymotic disease, not included in the above table, namely Puerperal Fever, occurred during the 4th. quarter, but a careful investigation failed to prove any connection between the cases, which occurred in the practices of three independent medical practitioners.

The average of deaths from these Septic or Blood poisoning diseases which comprise Puerperal Fever, Pyaemia, and Erysipelas has been for the past ten years 5.6 per annum while this year 3 deaths were registered from these causes.

Three deaths from Influenza were registered during the fourth quarter, at which period of the year this disease was very prevalent throughout the Borough. One death from Influenza was registered also in the first quarter and one in the second quarter.

Phthisis & other Respiratory Diseases.

The deaths from chest affections have been as follows:—

TABLE VI.

Disease.	1st quarter.	2nd quarter.	3rd quarter.	4th quarter.	Total.	Rate per 1000.
Phthisis ...	6	8	6	8	28	1.15
Bronchitis	12	7	3	7	29	1.19
Pneumonia	2	4	1	2	9	0.37
Totals	20	19	10	17	66	2.71

The death-rate from Phthisis is not so favourable as last year being 1.15 per thousand as compared with 0.95, while the total number of deaths from this disease is 5 more than last year. The mean rate for the past ten years has been 1.157 per thousand, so that the rate for 1893 is just below the average.

The deaths from Consumption or Phthisis are of importance in that they are dependent to a great extent upon certain sanitary conditions of a neighbourhood, of which the most important are surface drainage and density of population. A damp soil combined with the influences of densely packed tenement property or crowded ill-ventilated workrooms are the most fruitful causes, not of consumption, but of the spread of consumption. Phthisis must be classed for all practical purposes with the infectious or preventible diseases and although it is impossible, owing to the long duration of the disease, to isolate such cases or even to exclude them from work-rooms, factories or other busy haunts of men, yet much can be done by improving the hygienic condition of such places to check the spread of the disease.

It must not be forgotten however that Phthisis is undoubtedly acquired occasionally by the ingestion of tuberculous meat or of milk from tuberculous cows and too great care cannot be exercised in the inspection of all meat exposed for sale and intended for the food of man.

The following table gives the sex and age—distribution of the deaths from Phthisis and it will be seen that there were 16 deaths of females and only 12 of males, and that between the ages of 15 and 45 the mortality among females is exactly double of that among males, while that above 65 years of age there were 3 deaths of males from this cause and only 1 female. It would appear from this that the hardships and exposure, which a large proportion of our male population of adult age must necessarily experience, render them less liable to diseases of the chest, and that it is the women and old men, who seldom stir from their own hearth, that succumb with greatest readiness.

TABLE VII.

Sex.	Ages.						
	Under 5	5—15	15—25	25—45	45—65	Over 65	Totals.
Males ...	0	1	1	5	2	3	12
Females ...	1	0	5	7	2	1	16

The number of deaths from other respiratory diseases shows a marked reduction on last year being 38 as compared with 68, while in 1891 the deaths from these causes numbered 70. The annual average for the past ten years has been 56.3 and the rate of mortality 2.61 per thousand while during 1893 the rate has been 1.57 per thousand.

Heart Diseases.

The deaths from Heart diseases number 26 as compared with 31 during the previous year. The average for the past ten years has been 28 with a rate of 1.3 per 1000; the rate for 1893 has been 1.07 per 1000.

Injuries.

There have been 13 violent deaths registered during the year consisting of the following accidents:—

Suffocation of Infants	3
Burns and Scalds	3
Drowning	1
Cut throat	2
Fractured skull	1
Railway crush	1
Broken neck (at sea)	1
Tetanus or Lockjaw (following injury) ...	1
	13

All other Deaths.

The deaths under this heading make up a total of 234 or a rate 9.6 per thousand of the population against 9.9 last year and an annual average for the past ten years of 9.18 per thousand.

The following table gives particulars of the deaths which are grouped under this heading; it will be observed that they include many deaths which must have more than a numerical interest to the Health Department of the Borough, seeing that they are to a somewhat limited extent preventible diseases. I refer more particularly to the deaths from Gastro-intestinal Catarrh, Rickets, Marasmus, Debility and Tabes mesenterica among infants and to the death from English Cholera. The deaths from Cancer also demand notice, seeing that the mortality from this disease in the Borough is 0.9 per thousand while the annual average for England and Wales is but 0.6 per thousand.

Of the 36 deaths of infants from congenital debility, rickets, hydrocephalus, and tabes mesenterica no one can doubt that the majority are dependent on the unhealthy surroundings of both parents and infants and in part on improper feeding by ignorant and often careless parents, and it is the great hope of all Santarians that the influences of free education will speedily lead to a more intelligent knowledge by all of the simple laws of health and dietetics.

Table VIII.

DEATHS UNDER FIVE YEARS OF AGE.		DEATHS AT FIVE AND OVER.	
Convulsions	18	Old age	20
Dentition	4	Cancer	22
Premature birth	21	Apoplexy	22
Congenital Debility	16	Meningitis	2
Marasmus	9	Epilepsy	2
Tuberculosis	4	Cerebral softening	4
Tabes Mesenterica	4	Diabetes	5
Meningitis	4	Syncope	4
Gastritis	2	Aortic aneurysm	2
Gastro-intestinal Catarrh	16	Strangulated Hernia	3
Congenital Syphilis	2	Intestinal obstruction	1
Croup and Laryngitis	5	Perityphlitis	1
Thrush	1	Bright's disease	10
Spina Bifida	2	Cirrhosis of Liver	3
Rickets	5	Congestion of Liver	1
Hydrocephalus	2	Stone in Kidney	1
Septicaemia from inflamed navel	1	Stone in Bladder	1
		Urethral stricture	1
		Prostatic disease	1
		Perforating Ulcer of stomach	1
		Gout	1
		Senile Gangrene	3
		English Cholera	1
		Hydatid cyst of Liver	1
		Spinal Caries	1
		Acute Osteomyelitis	2
		Suppurating Ear disease	1
		Cerebrospinal Paralysis	1
Total	116	Total	118

The deaths from gastro-intestinal catarrh should I fear have been classed with those from zymotic diarrhœa, were it not for a technicality of nomenclature, and if they had been so, the zymotic death-rate would have appeared in a far more unfavourable light, while the death from English cholera is also attributable to similar causes, namely a high earth temperature with a surface soil contaminated by organic filth.

The large number of deaths from premature birth point to the existence of a considerable amount of female labour in our town; such deaths depend largely upon the continuance at work of women who are pregnant, until forced by actual physical disability to desist, for by so doing they not infrequently induce premature labour—with its natural sequence—death of the infant.

The deaths from cancer number 22 and the disease was distributed as follows:

Intestine	5	Peritoneum	1
Bladder	1	Liver	3
Uterus	2	Skin	1
Breast	3	Axillary glands	1
Internal *(undefined)*	5		

The mortality from cancer has been slowly increasing throughout the country during the past few years, but the reasons for this increase are not very clear. It has been suggested that the great saving of infant life due to the sanitary progress of late years, and the consequent increase in the number of those who attain to adult age may be a sufficient explanation of the increase in the rate of this essentially adult disease.

PART II

STATISTICS OF REPORTED CASES OF SICKNESS.

Pauper Sickness.

The following shows the age distribution of the applicants for parish medical relief during the year 1893.

TABLE IX

Age.	Cases of Out-door Sickness.	Cases admitted into Workhouse Infirmary.
Under 1 year	21	2
1 and under 5	34	7
5 " 15	68	8
15 " 25	46	14
25 " 65	225	50
65 and upwards	161	20
Age not stated	3	—
Totals at all ages ...	558	101

The amount of sickness amongst the poorest classes of the community shows a considerable increase when compared with last year, the number of cases receiving outdoor medical relief during that period having been 470 and the cases admitted to the infirmary 103. Unhappily the increase appears solely among persons under 65 years of age, and especially between the ages of 25 and 65 which fact points conclusively to the existence of a period of financial depression, largely affecting the wage earning classes.

The following is a list of the diseases which were treated by the Poor Law Medical Officers during the above period.

TABLE X.

Diseases.	Under 5 years of age.	5 years and upwards	Total.
Scarlet Fever	2	3	5
Diphtheria	1	4	5
Whooping Cough	6	7	13
Enteric Fever	1	5	6
Diarrhoea	11	24	35
Erysipelas	1	7	8
Phthisis	2	19	21
Bronchitis	11	40	51
Heart Diseases	—	26	26
Injuries	1	27	28
Influenza	—	8	8
Cancer	—	1	1
All other diseases	29	423	452
Total	65	594	659

It will be observed that 72 of the above are cases of zymotic disease, that is to say, more than 10 per cent, which is certainly a far higher percentage than obtains for the Borough generally, so far as one is able to judge without complete sickness returns and is an additional proof if any were needed that poverty and zymotic disease walk hand in hand.

Zymotic Diseases.

During the year 295 cases of infectious disease were notified by medical men under the Infectious Diseases Notification Act of 1889, as compared with 134 during 1892, 65 during 1891 and 112 during 1890.

The quarterly distribution of the cases are as follows:

1st Quarter	... ...	56
2nd ,,	... ...	39
3rd ,,	... ...	61
4th ,,	... ...	139
		295

It will be seen at once that the fourth quarter of the year was a period of great sickness for the Borough, and there can be no question that had it not been for the prompt measures adopted by the

Sanitary Authority at the commencement of the outbreak, the epidemic of Diphtheria which at this time seriously threatened the town, would speedily have obtained more alarming proportions.

The localities from which these diseases are reported are shown in the following table with also the general death-rate for each ward and their several zymotic death-rates. Eight cases which were obviously imported into the Borough by visitors have been deducted, namely from the South ward 6, and from the West ward 2.

TABLE XI

Locality.	Population.	Total reported cases.	Corrected Totals.	Zymotic Sickness-rate per 1000.	General Death-rate per 1000.
North Ward	6795	91	91	13.39	21.63
East ,,	4979	26	26	5.22	16.67
West ,,	6945	121	119	17.13	20.59
South ,,	5477	53	47	9.12	16.06
Port	——	4	4	——	——
Totals ...	24196	295	287		

The following table gives the nature of the infectious diseases reported as occurring in each Ward, and in the Port, during the year:—

TABLE XII.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Total.
North Ward	37	26	22	6	—	91
East ,,	10	5	7	4	—	26
West ,,	28	61	22	9	1	121
South ,,	12	20	12	8	1	53
Port ...	—	—	4	—	—	4
Totals ...	87	112	67	27	2	295

It will be observed that the West Ward has suffered most severely during 1893, and this is mainly accounted for by the fact that the epidemic of Diphtheria at the latter end of the year was practically limited to this Ward. The remarkable exemption almost of the East Ward from diseases of this class bears strong testimony to the germ destroying properties of the ozone-laden air, which blows straight off the sea into the houses and cottages of this Ward, and it would appear that the biting East winds for which this coast is famous afford a protection not only from Consumption but also from the various infectious diseases which fret those who seek shelter in more inland quarters.

Small Pox.

No cases of this disease have occurred in the Borough.

Measles.

A few cases of this disease have come to the knowledge of the Health department during the year, and it will be seen from Table V., that no deaths from Measles have been recorded. Seeing however that deaths from this disease usually occur during the second or third week when all rash has disappeared, and nothing remains but some Bronchitis or acute Diarrhoea, it is quite possible that some of the deaths recorded under these headings, might be dependent on an antecedent attack of Measles.

It is high time that Measles, which during 1893 was responsible for 10,764 deaths throughout England and Wales as compared with 6,868 deaths attributable to Scarlet Fever and 8,917 deaths due to diphtheria, was added to the list of diseases notifiable under the Act of 1889, for there can be no question that the prompt handling of the earlier cases in a threatened epidemic of Measles will do as much to stamp out the outbreak as has been the case with our recent experience of Diphtheria.

During the past five years the Borough has been practically free from Measles, the deaths during this period amounting to a total of only 16 or an average of 3.2 deaths per annum. Far from this however being reassuring news, it indicates that almost every child in the Borough, under 5 years of age, is liable at any moment to contract the disease and yet no precautions whatever are in force to prevent its spread. The experience of the past winter points with no uncertain finger to the great rapidity with which a zymotic disease, introduced into a school, will spread amongst the scholars, and if to this we add ignorance on the part of the Sanitary officials, of the occurrence of a threatened outbreak, as is the case at the present moment in respect to Measles, I fear there would be little hope of staying its progress. I would therefore urge upon the Sanitary Authority to consider, at an early date, the advisability of adding Measles to the schedule of infectious diseases to be notified by medical practitioners to the Medical Officer of Health for this Borough.

Scarlet Fever.

Eighty seven cases of this disease have been reported during the year, as compared with 32 during 1892; more than half of the cases occured during the 4th quarter of the year. The disease has however been of a mild type and only one death from this disease was notified during the year. It will be seen from table XII that the disease has been most prevalent in the North and West wards. In seventeen of the above cases, the means of isolating the patient at home were so deficient that they were admitted to the Sanatorium, while in all the other cases every effort was made by the officials of the Health Department, working in concert with the medical practitioners of the town, to prevent any extension of the disease.

In one case a child developed scarlet fever three days after the return of two of her sisters from a Northern town, where they had been as inmates of the Fever Hospital suffering from scarlet fever, for six weeks previously. In eight cases it was distinctly proved that the infection was introduced into the Borough from neighbouring towns, but this is no uncommon experience for health resorts such as Lowestoft.

Typhoid Fever.

This disease in its endemic form may be fairly taken as giving a rough estimate of the degree of sewage pollution of the soil of any given district, and viewed in this light, the number of cases which have occured in the Borough during 1893, namely sixty-seven, convince one that there yet remains much to be done in remedying leaking drains and overcharged cesspools and in ensuring the provision of good wholesome drinking-water in place of the contaminated wellwater, with which not a few of the inhabitants of this Borough are still content.

The condition of the wells in the Borough which are used for the supply of drinking water, has occupied the attention of this Department, during the past year, and as a result of the investigations and analyses which have been carried out, the Sanitary Authority have made orders for the immediate closure of twenty-one wells and for the cleansing of five others.

In eleven of the cases of Typhoid Fever the drains were found to be defective, and in some it was found that the privy and copper were placed back to back, so that whenever the copper fire was used the heat of this drew the effluvia from the privy into the house. All these defects were promptly remedied by order of the Sanitary Authority. Three cases were traced to eating poisoned crabs which had come from Grimsby* and in at least two cases the drinking water was unmistakably contaminated with sewage; while one case from the Port had contracted the disease at South Shields.

Fifteen cases of Typhoid Fever were admitted to the Sanatorium during the year, four of them being from one family and two from another.

In one case at least the source of infection was traced to the effluvia arising from the town manure heaps, and there can be no question that the deposit of night-soil upon land adjacent to the town is a constant menace to the health of the inhabitants. In spite of the extensive improvements which have taken place in our scheme of town sewerage, there are, at the present moment, no less than three thousand privies and middens within the Borough, the whole of which should be replaced by water-closets, for while theoretically earth-closets and pails may be as wholesome and as cleanly as any form of water-closet, yet in practice it is found that unless a far greater supervision is exercised than is possible without a large staff of Sanitary Inspectors, these methods of refuse disposal soon become a nuisance to the tenant and a source of danger to the neighbours.

The North and West wards furnish the great proportion of the cases, there being 22 cases from each of these wards as compared with 7 from the East ward and 12 from the South ward while the deaths for the year total six, three of which occurred in the West ward, two in the North ward and one in the South ward.

In order to avoid, as far as possible all risk of the spread of infection which in this disease arises from the stools passed by the

*Vide Report of Port Sanitary District.

patient, I should suggest that covered pails, painted a distinctive colour, and half filled with a dry absorbent packing of compressed peat or other similar material, be supplied daily to those houses in which cases of this disease are known to exist. These receptacles would receive all the discharges from the patient and their contents should then be burned as this is the only sure method by which the infective material can be destroyed.

Whooping Cough.

No record is available of the number of cases of this disease which occurred during the year; it will be observed however that 44 deaths from this disease are recorded of which 42 were in children under 5 years of age. It may be concluded therefore that a considerable outbreak of the disease occurred during the second and third quarters of the year and it is equally certain that the schools were largely instrumental in disseminating the disease. The insidious onset however of the disease and its uncertain duration are points which tell strongly against the likelihood of any real advantage accruing from its addition to the list of notifiable diseases, and our efforts should be mainly directed towards the exclusion of obviously infected children from our schools and attention to the ventilation of the school-rooms.

Whooping Cough cannot, to my mind, be placed in the same category with Measles when considering the advantages of an early knowledge of a threatened epidemic. In the latter case the early symptoms are characteristic, there is a most unmistakable rash appearing almost invariably on the fourth day, and whether the patient peel or not, he practically ceases to be infectious at the end of three or at the most four weeks. In Whooping cough on the contrary there is no rash, its onset in no way differs from that of an ordinary cold and its duration may vary from two weeks to two or even three months, during the whole of which time the patient is in all probability capable of conveying the infection to others.

Diphtheria.

It will be seen from Table XII that the West Ward has suffered severely from an outbreak of this disease which occurred during the 4th. quarter of the year, and was limited to one school, the St. John Infants' School in Hervey Street. As an illustration of the severity of the outbreak, it may be mentioned that although the school was closed, by order of the Sanitary Authority, on December 5th., in consequence of the occurrence of ten cases in connection with this school during the previous fortnight, yet before the close of the year thirty-five cases occurred among pupils of this one school, eight of whom died.

At the time of the outbreak I made a careful investigation of the sanitary condition of the school buildings but failed to find any gross defects to which the outbreak could be attributed.

The ventilation of the School rooms appeared adequate, the spaces beneath the flooring dry and clean, the trough closet in good order and the accomodation such that each pupil had 8 square feet of floor space which is the minimum allowed per head in Board Schools. Certain rain water gullies which communicated untrapped with the School drain, were trapped, the drain ventilated, and other rain pipes which discharged into pits were trapped and connected with the sewer, and the school yard was drained, by order of the Managers, acting under our advice.

Unfortunately a few cases were conveyed into the South Ward owing to the fact that the St. John Day School, which it was not considered necessary to close, is situated in this Ward and many of the families send their younger children to the Hervey St. School and the elder ones to the Day School.

The total number of cases of Diphtheria occurring during the year amounts to 112 of which three at least were imported cases.

It would appear that until 1891 the Borough was practically free from this disease; during 1892 a number of cases occurred, some being visitors and newcomers, and since that time the infectious material seems to have gained a foothold in our drains and sewers and crops out wherever a defective drain gives it an outlet, while our schools have materially aided its spread by the almost unavoidable commingling of healthy and ailing children in warm school rooms for several hours daily. The new drainage scheme which the Sanitary Authority have in hand will, we hope, do much to remedy this evil by providing other outlets than those of faulty drains for the infective germs of this disease.

It is a point worthy of note that within 15 yards of the School entrance in Hervey Street there was an open manhole, over and around which the children attending this School doubtless played daily, but it would be impossible to say how much or how little this had to do with the outbreak of Diphtheria at this School. It cannot be denied however, that the feeling is rapidly gaining ground among

Sanitarians, that to provide open manholes in our streets and public thoroughfares, so that all men may alike breathe the foul odours which arise from stagnant sewage, is to say the least, a suicidal policy. I grant that an open manhole is perfectly safe if our sewers are perfect, that is to say with a uniform gradient, a constant flow of not less than 2 ft. per second, no dead-ends, little or no internal friction and no possibility of leakage, but I fear that such a utopian condition of things is not attainable, and I have therefore no hesitation in condemning the practice of ventilating our sewers on a level with the feet of passers by.

Diarrhoea.

This town, like others, suffered severely during the hot summer of 1893 from an outbreak of zymotic diarrhoea which carried off 38 infants, 36 of whom succumbed during the third quarter of the year and the remaining two during the fourth quarter. To these must be added the 16 deaths from gastro-intestinal catarrh, as explained on page 14, thus making a total of 54 deaths of infants from this cause alone.

It has been fairly conclusively shown by Ballard that zymotic diarrhoea depends upon the activity of certain organisms in the soil, which do not develop their infective properties until the temperature of the earth, at 4ft. depth from the surface, attains a constant level of 56° F. and the observations made by the Rev. C. Steward of Somerleyton provide a singularly accurate corroboration of this fact.

On page 37 will be found a chart showing that the curve of diarrhoea mortality corresponds with the curve of the 4ft. earth temperature, as recorded by Mr. Steward, but is also influenced by the rainfall recorded during the same period.

It must not be concluded however that these organisms occur naturally in all soils; on the contrary they are only present in soil which has been contaminated by sewage pollution, or upon such sites as are known as "made ground", which means usually some old gravel pit, osier bed or bog, which has been gradually filled up by town refuse, levelled and then disposed of as a "desirable building site".

It would, I fear, be somewhat beyond the scope of this report to enumerate the actual streets in which the deaths from zymotic diarrhœa occurred, interesting though the list would be, and I must content myself with the statement that of the 38 deaths registered as due to acute diarrhœa 15 occurred in the North ward, 12 in the West ward and 11 in the South ward, while the case of English cholera also occurred in the West ward. It will be observed that the East ward escaped entirely which is doubtless due to the close proximity of this ward to the sea coast.

The lesson taught by Ballard's theory, and our own corroboration of it, is a simple one, and it is this; that if we wish to abolish deaths from zymotic diarrhœa, and from cholera, whether English or Asiatic, we must purify our subsoil and its surface water. To do this, there cannot, to my mind, be found a more simple nor yet a more efficacious method than the watering of our streets, the spraying of our slums and alleys, and the sluicing of our drains and sewers, with electrolysed sea-water. For many years past it has been known that the passage of an electric current through sea-water would set free a certain amount of chlorine, of ozone and of other more complex oxidizing bodies, which convert the sea-water into a powerful disinfecting fluid, and as I am aware that the Council contemplate a scheme of street-watering by sea-water, I take this opportunity of urging upon them the desirability of considering the further advantages which will accrue, if a current of electricity of low voltage be passed through the storage tanks before the sea-water is drawn off for flushing and watering purposes. I may say that this is a modification of M. Hermite's system of the treatment of sewage by electrolysed sea-water, which was found so successful during the autumn of 1893 at Havre and Lorient, both of which towns had suffered severely from Cholera during the previous year. The additional cost of plant sufficient to produce the necessary electric current is small, while the increased value of the sea-water for purifying our drains and sewers and destroying the telluric organisms upon which so much sickness depends, is great indeed, and the lavish distribution of so cheap and harmless a disinfecting fluid would do much to check the preventible mortality, especially among the infant population of the Borough. There can be no doubt whatever that the regular ebb and flow of the sea, with its purifying influence upon the subsoil water, is the principal factor in the causation of the low death-rate, the low zymotic rate and the entire absence of deaths from zymotic diarrhœa in the East ward of the Borough.

The additional plant required to complete the scheme as proposed by your Surveyor would consist in the provision of an electrical dynamo worked by a 12 h. p. gas engine at each pumping station, or if preferred at each storage tank, the former being the more economical method as additional labour would thus be obviated and less plant would be required. The entire cost of this additional plant of the size requisite to deal with the quantities of sea water proposed by the Surveyor in his scheme, would I am informed by M. Hermite's English agents be about £1,500 if erected at the pumping stations or about £2,000 if erected at the storage tanks, while the working expenses of the scheme would be little if at all increased, and there is no doubt that a considerable proportion of the £60 or £70 now paid annually by the Sanitary Authority for disinfectants could be obviated by the use of this liquid.

The electrical current generated by the dynamo is passed for for about 24 hours through the sea water and by its action certain powerful oxidising bodies are set free in the liquid and when this is added to sewage matter the whole of its organic constituents, whether solid or in solution, are rapidly dissolved and destroyed (oxidised) and the sewage thus rendered inodorous and innocuous.

PART III.

GENERAL REPORT.

Meteorology of Lowestoft.

The following Meteorological observations for 1893 have been taken by S. H. Miller, Esq., F.R.A.S., F.R., MET. SOC., at Lowestoft, and are extracted from the Quarterly Returns of the Registrar General.

Table XIII.

	Barometric Pressure.	TEMPERATURE.				Rainfall.		Humidity.	Greatest Prevalence of Wind.
		Maximum.	Minimum.	Mean daily range.	Mean.	Monthly fall.	Days with rain.		
						inches.		pr cent.	
January	29.920	51.0	16.4	34.6	34.8	2.38	22	91	W & N
February	29.582	55.4	26.5	28.9	39.9	2.04	18	78	W & N
March	29.984	64.0	28.8	35.2	44.3	0.40	5	73	W & S
April	30.074	64.0	32.6	31.4	45.1	0.08	3	81	E & N
May	29.955	68.4	38.2	30.2	51.6	0.99	8	79	E & N
June	29.905	75.4	36.7	38.7	55.5	1.09	11	80	E & N
July	29.782	76.7	46.0	13.4	59.6	1.80	19	76	W & E
August	29.917	87.4	46.8	15.3	62.3	1.62	15	75	W & N
September	29.722	76.8	37.0	17.0	53.5	0.73	10	73	W & N
October	29.755	65.0	32.5	33.5	50.7	1.91	16	84	W & N
November	29.832	55.8	27.6	28.2	43.2	2.76	20	87	W & N
December	29.862	54.0	23.0	31.0	40.1	1.67	17	91	W & S
Totals	358.290	793.7	392.1	337.4	580.6	17.47	184	968	
Means	29.857	66.1	32.6	28.1	48.4	1.45		80	

Sanatorium.

During the year 36 cases were admitted into the Fever Hospital, while 3 remained from 1892 making a total of 39 cases, which is a much larger number than during any previous year.

The following were the diseases admitted :—

Table XIV.

	Cases.	Deaths.
Enteric Fever	14	2
Diphtheria	4	0
Scarlet Fever	17	1
	35	3

One case in addition was admitted as Enteric Fever, but proved not to be so, and was accordingly discharged. It will be observed that there were a larger number of admissions for Scarlet Fever, than for any other disease, and this one would expect when one takes into consideration the greater difficulty of isolating in small cottages, children who do not feel ill and yet are a source of danger to others because they are undergoing the process of peeling. It is for such cases tnat a Fever Hospital is most essential, while it is, under ordinary circumstances, least so for cases of Enteric Fever, which disease has during past years furnished the bulk of the cases admitted to this Hospital. Unfortunately however, this Borough still posesses a large number of privies and middens, and having regard to the fact that Enteric Fever is spread by the effluvia from the stools passed by the patient, or by the contamination of food or drinking-water by minute traces of such discharges, and that the contents of all privies and middens are distributed on land in the immediate vicinity of the Borough, we have felt it our duty to admit such cases into the Hospital, and I fear that until this *so-called dry* system of sewage disposal is prohibited by bye-law and adequate water-closet accomodation provided for each house, the Sanitary Authority must continue to provide Hospital accomodation for this class of disease.

During the year the old wooden Hospital has been used for the Scarlet Fever cases, but past experience has shown that the utter impossibility of maintaining the large draughty wards at an even temperature is a great source of danger to the inmates, who are peculiarly liable, in this disease, to inflammation of the kidneys or the lungs, and it was in fact to a relapse brought on by inflammation of the kidneys, that the one death from Scarlet Fever was due.

The small iron Hospital of four beds known as the Cholera Hospital has been used, during the year, for the treatment of cases of Enteric Fever and of Diphtheria and like all temporary Hospitals has proved ill-adapted to the treatment of such cases.

New Sanatorium.

I regret to say that the new Hospital, which was completed in June, is still unocupied, the delay being due in part to the fact that the Sanitary Authority still await the decision of the Local Government Board as to the granting of the loan, and their approval of its arrangements and disposition.

It may not be out of place however to mention here, that before the Hospital can be occupied by patients, certain minor additions must be made to the ward Pavilions, of which the most important are the provision of bathing accommodation for the patients, including a supply of hot water in each block, and the provision of sculleries or of slop-sinks in the Nurses' duty rooms. As moreover the Local Government Board do not approve of Nurses sleeping in the duty-rooms, there can be no doubt that further accomodation will be required for the staff.

The Sanitary Authority have also decided to engage a permanent staff of four Nurses, two being charge nurses and two assistants, and also a resident laundress in lieu of the woman who now attends from the town on certain days of the week. The provision of a permanent staff will obviate much of the inconvenience which has arisen in the past from the hospital being dependent upon other institutions for its nurses, while there can be no question that the patients will greatly benefit by the existence of a staff of fully qualified Hospital trained Nurses.

Ventilation of Drains.

The ever recurring question of the ventilation of our drains and public sewers has been again to the fore during the past year and many have been the complaints respecting foul odours arising from open man-holes and surface ventilators. I have already, in speaking of the outbreak of Diphtheria, stated that to ventilate drains and sewers on a level with the streets is a practice which is rapidly passing into disfavour with sanitarians, and I can only add to this, that if every soil-pipe were properly ventilated, and where an interceptor is used, this were ventilated, on the sewer side (provision is made for the insertion of a ventilating shaft in this position but I find that almost invariably this opening of the interceptor is closed) there would be no necessity for the Sanitary Authority to provide costly ventilating shafts, nor yet to ventilate the sewers by open man-holes, for every water-closeted house would assist in ventilating the sewer, and no accumulation of gases could at any time occur. Under these circumstances also the use of interceptors would be obviated, as they would then merely serve as useless obstructions to the flow of the sewage.

Public Sewers.

The Sanitary Authority have made application to the Local Govenment Board for a loan for the provision of new sewers in the following streets: Lorne Park Road, Richmond Road, Lawson Road, and St. Leonards Road comprising the Lorne Park Estate; the South portion of London Road, North end of High St., Denmark Road, Trafalgar St., Pakefield St., Compass St., Dove St., Crown St., Factory St., Chapel St., Gunn Lane, Duke's Head St., and White Horse St.; it has also been decided to remove the sewage outfall to a point south of the Gasworks, and there can be no doubt that these improvements will have an appreciable effect upon the health of the Borough.

Water Supply.

As pointed out when dealing with the question of the causation of Typhoid Fever in the Borough, a large number of wells are still used for drinking purposes throughout the town, and there are good reasons for believing that many of them are so polluted by sewage and other organic filth as to be quite unfit for use. Twenty six wells have during the past year been either closed or ordered to be cleansed and this source of drinking water is still occupying the attention of the Health Department. The Lowestoft Company's water has also been subjected to analysis during the year and was reported to be of good quality.

Sanitary Inspector's Report of work completed during the year, 1893.

House drains condemned	117
Defective traps remedied	55
Privies adjacent to fire-places abolished	28
Privies converted into water closets	58
House drains ventilated	107
Water closets condemned	31
Privies ventilated	43
Sink pipes disconnected from drains	13
Blocked drains opened	29
Privies under bedrooms condemned	2
House inspections and re-inspections	1493
Slaughter houses inspected	13
Bake houses inspected	
Ships and Canal boats regularly inspected	

Food and Drugs Adulteration Acts.

SAMPLES TAKEN.

New Milk—6 genuine, 1 poor, 1 adulterated	8
Pork Lard—all genuine	3
Butter—9 genuine, 1 adulterated	10
Ale—all genuine	5
Whiskey—genuine	1
	27

Your obedient servant,

PHILIP KETT,

Inspector of Nuisances.

TABLE OF

During the Year 1893, in the Urban Sanitary District

DISEASES, AGES,

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities. (a)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.						
	At all ages. (b)	Under 1 year. (c)	1 and under 5 (d)	5 and under 15 (e)	15 and under 25 (f)	25 and under 60 (g)	60 and up-wards. (h)
North Ward	136	52	28	7	3	16	30
East Ward	77	30	6	6	2	16	17
West Ward	139	69	15	6	4	19	26
South Ward	81	24	12	2	1	12	30
The Hospital	15		2	2	1	7	3
Convalescent Home	1				1		
Sanatorium	3		1	1		1	
The Port	2				2		
TOTALS	454	175	64	24	14	71	106
The subjoined numbers have also been taken into account in judging							
Deaths occuring outside the District among persons belonging thereto.	13	2	1			4	6
Deaths occuring within the Division or District among persons not belonging thereto.	9				3	3	3

DEATHS

of the Borough of Lowestoft, classified according to

AND LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
					Fevers																	
(i)	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping-cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy	Heart Disease.	Injuries.	All other Diseases.	TOTAL.
Under 5			2										13	13				7	1	2	42	80
5 upwds.			3			1								1			7	5	8	1	30	56
Under 5													6	2				5			23	36
5 upwds.			1						1				1				5	2	6	2	23	41
Under 5			5			2							17	11				9		2	38	84
5 upwds.			4						1								8	3	3	1	35	55
Under 5			1										6	9			1	5			14	36
5 upwds.			1			1			1				1	2			7	1	8		23	45
Under 5			1																	1		2
5 upwds.																		1		2	10	13
Under 5																						
5 upwds.																					1	1
Under 5		1																				1
5 upwds.						2																2
Under 5																						
5 upwds.																				2		2
Under 5		1	9			2							42	35			1	26	1	5	117	239
5 upwds.			9			4			3				2	3			27	12	25	8	122	215
of the mortality of this Division of the Sanitary District.																						
Under 5																		1			2	3
5 upwds.														1			1	1			7	10
Under 5																						
5 upwds.																		1	1	3	4	9

TABLE OF POPULATION, BIRTHS, AND OF

Coming to the knowledge of the Medical Officer of Health, during
classified according to DISEASES,

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities. (a)	Population at all Ages. Census 1891. (b)	Population at all Ages. Estimated to middle of 1893. (c)	Registered Births. d	Aged under 5 or over 5. (e)	New Cases of Sickness in each knowledge of the Medical 1 Smallpox.	2 Scarlatina.	3 Diphtheria.	4 Membranous Croup.	Fevers. 5 Typhus.	Fevers. 6 Enteric or Typhoid	Fevers. 7 Continued.	Fevers. 8 Relapsing.	Fevers. 9 Puerperal
North Ward (H)	6796	6795		Under 5		8	6						
				5 upwds.		29	20			22			
East Ward ..	4848	4979		Under 5		1	1						
				5 upwds.		9	4			7			
West Ward ..	6423	6945		Under 5		5	20						
				5 upwds.		23	41			22			1
South Ward	5084	5477		Under 5		1	3			1			
				5 upwds.		11	17			11			1
Port	196			Under 5									
				5 upwds.									
Rural district				Under 5									
				5 upwds.									
Total	23151	24196		Under 5		15	30			1			
				5 upwds.		72	82			62			2
Port	196												

State here whether "Notification of Infectious Disease" is compulsory
mentioned Diseases insert in the columns with blank headings the names of
here the name of the Isolation Hospital used by the sick of the District.
the District state where it is situated—**Sanatorium, North Ward.**

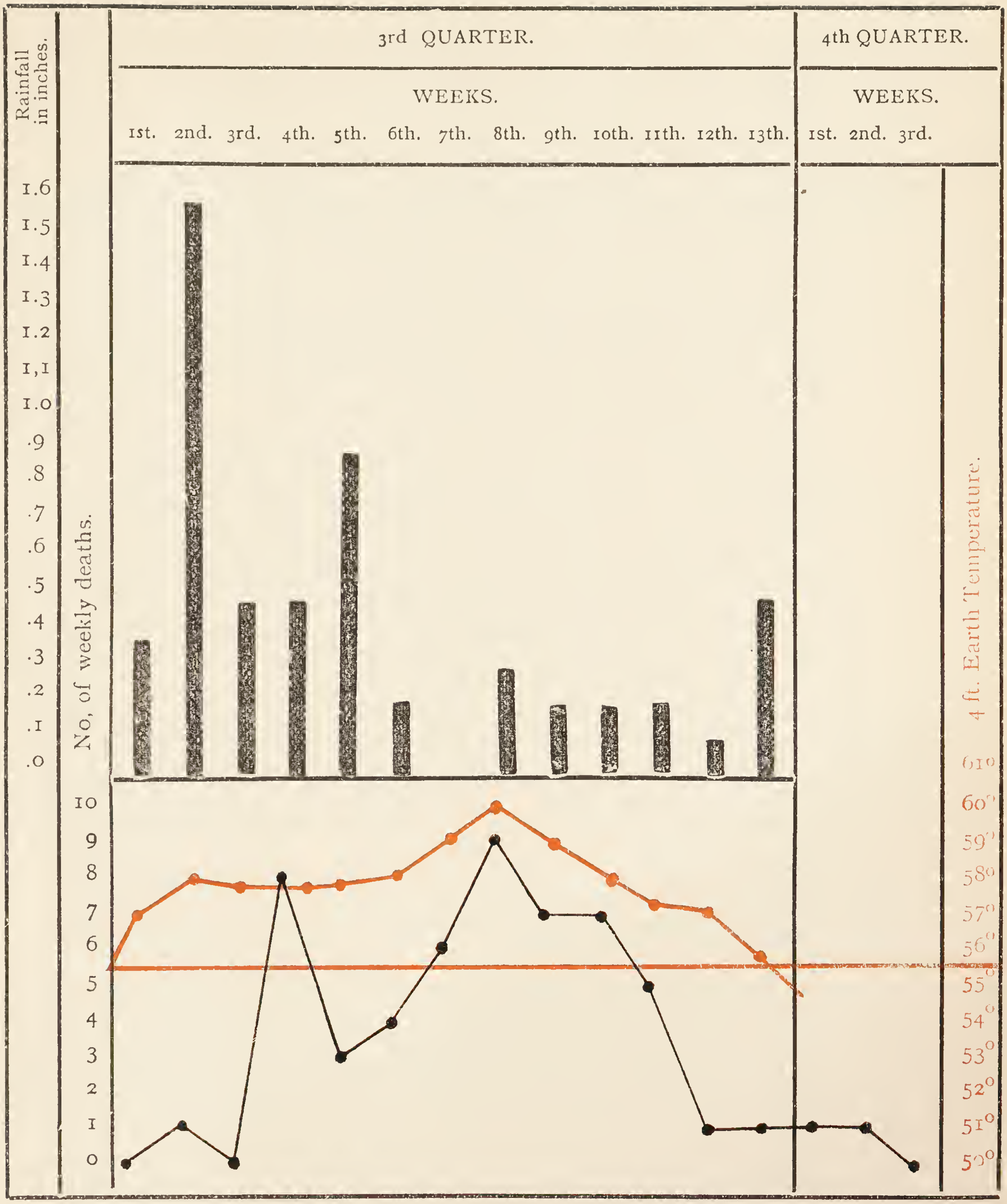
NEW CASES OF INFECTIOUS SICKNESS,

the Year, 1893, in the Urban Sanitary District of Borough of Lowestoft, AGES, and LOCALITIES.

Locality coming to the Office of Health.				Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital											
10	11	12		1	2	3	4	5	6	7	8	9	10	11	12
								FEVERS.							
Cholera.	Erysipelas		TOTAL.	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	TOTAL.
	1		15		2										2
	5		76		7	1			8						16
			2												
	4		24		2										2
			25			1									1
	9		96		5				6						11
			5												
	8		48			2									2
									1						1
					1										1
	1		47		2	1									3
	26		244		15	3			15						33

in the District —Yes. Since when ?—February, 1890. Besides the above-any that are notifiable in the District, and fill the columns accordingly. State Mark (H) the Locality in which such Hospital is situated; and if not within

CHART.



In the above chart which includes the 38 deaths from Diarrhœa and the 16 deaths from gastro-intestinal catarrh, the black curve represents the weekly mortality from zymotic Diarrhœa, while the red one represents the 4 ft. earth temperature during the same period, and the vertical lines show the weekly rainfall in inches. It will be observed that the heavy fall of rain during the second week of the 3rd quarter checked the Diarrhœa mortality for a week, but that it rose rapidly in the 4th week owing to the germinating influence of the warm moist soil upon the telluric organisms. A further temporary check resulted from the heavy rainfall in the fifth week, but the mortality rapidly rose again, attaining its maximum in the eighth week of the quarter, and then falling gradually with the declining earth temperature.

PORT SANITARY DISTRICT OF LOWESTOFT.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

For the Year ending December 31st,

1893.

At the census of 1891 there were 196 persons on board vessels in the Port as enumerated by the Officers of H.M. Customs. The following figures give a better idea of the floating population of the Port.

No. of Fishing boats on the Register at end of 1893	455
Total No. of registered vessels belonging to this Port	518
No. of vessels entering the Port during 1893; from Foreign (exclusive of Fishing vessels).	245
No. of vessels entering the Port during 1893; Coasting	571
	816

The total deaths registered as occurring in the Port or at sea were 2 both being returned under the heading of injuries.

Four cases of sickness were reported during the year, all of them being cases of Typhoid Fever.

The first case was that of a Swedish seaman from the "Susannah Thrift" a coasting vessel. The man was shipped at South Shields, on August 9th, and was taken ill on August 12th. On arrival at Lowestoft, on August 19th, he was found to be suffering from Typhoid Fever and was removed to the Sanatorium, from which he was discharged cured on September 16th. The vessel was found to be in good sanitary condition and there can be no question that the man contracted the disease before shipping, and probably at South Shields.

The three other cases were reported about the same time, namely on September 22nd. and formed a portion of the crew of the fishing boat "Bethel" No 236.

* The history of their attack is a most interesting one. The "Bethel" with a crew of 8 hands was fishing off Grimsby in September and on about the 6th. of that month, when in the Port of Grimsby they exchanged a last of herrings for some crabs from a Grimsby crab boat, the crabs having been caught at the North entrance of the Humber. All eat heartily of them except one man (Bray, the mate) and all with the exception of this man, were attacked the same night with cramps, vomiting and diarrhoea. Four of them continued to suffer from diarrhoea and were unable to continue at work. They landed at Lowestoft on the 12th. September and during the following week were all reported as suffering from Enteric Fever — the fourth man residing in the rural district of Pakefield; all of them subsequently recovered. As this occurred at the time that Cholera prevailed at Grimsby the incident was invested with more than usual interest, while it serves as an additional illustration of the fact that shell-fish gathered near the sewage outfall of a town will, if eaten, occasionally account for an outbreak of zymotic disease, the origin of which would otherwise be very obscure.

On March 20th. Dr. Copeman, Local Government Board Inspector met the Sanitary Committee and discussed with them the details of the Board's regulations in respect to Cholera. The Sanitary Authority decided to adopt the same precautions that they had provided the previous year, and accordingly a Beachman was engaged as Watchman and a four-oared open boat hired for sea and harbour purposes, while Drs. Bell and Roberts were appointed as temporary Deputy Medical Officers of Health. Immediate notice was thus obtained by the officials of the Health Department of the arrival of any vessel from an infected Port, and all such were boarded but fortunately no cases of Cholera or of Choleraic Diarrhoea were discovered.

* Communicated by Dr. W. A. S. Wynne.

TABLE OF DEATHS

During the Year 1893,

IN THE SANITARY DISTRICT OF

PORT OF LOWESTOFT.

TABLE OF

During the Year 1893, in the Sanitary District

DISEASES, AGES,

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities. (a)	Mortality from all Causes, at subjoined Ages. At all ages. (b)	Under 1 year. (c)	1 and under 5 (d)	5 and under 15 (e)	15 and under 25 (f)	25 and under 60 (g)	60 and upwards. (h)
PORT	2				2		
Totals							
The subjoined numbers have also been taken into account in judging							
Deaths occuring outside the District among persons belonging thereto.	2				2		
Deaths occuring within the Division or District among persons not belonging thereto.							

DEATHS

of the Port of Lowestoft, classified according to

AND LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
					FEVERS																	
(i)	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping-cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy	Heart Disease.	Injuries.	All other Diseases.	TOTAL.
Under 5																						
5 upwds.																				2		2
Under 5																						
5 upwds.																				2		2

of the mortality of this Division of the Sanitary District.

Under 5																						
5 upwds																						
Under 5																						
5 upwds.																						

TABLE OF POPULATION, BIRTHS, AND OF

Coming to the knowledge of the Medical Officer of Health, during
classified according to DISEASES,

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities. (a)	POPULATION AT ALL AGES.		Registered Births. d	Aged under 5 or over 5. (e)	New Cases of Sickness in each knowledge of the Medical								
					1	2	3	4	5	6	7	8	9
									FEVERS.				
	Census 1891. (b)	Estimated to middle of 1893. (c)			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid	Continued.	Relapsing.	Puerperal
PORT ..	196			Under 5									
				5 upwds.						4			
TOTAL	196			Under 5									
				5 upwds.						4			

State here whether "Notification of Infectious Disease" is compulsory
mentioned Diseases insert in the columns with blank headings the names of
here the name of the Isolation Hospital used by the sick of the District.
the District state where it is situated—Sanatorium, North Ward.

NEW CASES OF INFECTIOUS SICKNESS,

the Year, 1893, in the Sanitary District of the Port of Lowestoft,
AGES, and LOCALITIES.

Locality coming to the Office of Health.				Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.											
10	11	12		1	2	3	4	5	6	7	8	9	10	11	12
								FEVERS.							
Cholera.	Erysipelas		TOTAL.	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	TOTAL.
			4						1						1
			4						1						1

in the District —Yes. Since when ?—February, 1890. Besides the above-
any that are notifiable in the District, and fill the columns accordingly. State
Mark (H) the Locality in which such Hospital is situated ; and if not within